ELSEVIER

Sensors and Actuators B 37 (1996) 196

SENSORS AND ACTUATORS B CHEMICAL

# Author Index of Volume B 37

Aboul-Enein, H.Y., 141
Alberti, G., 131
Andreev, S.K., 1

Baiulescu, G.-E., 141
Benech, P., 7
Berdagué, J.-L., 43
Bied-Charreton, C., 67
Binder, J., 37
Brie, M., 119
Brzózka, Z., 151
Bucur, R.V., 91

Calleja-Arriaga, W., 123
Carlsson, J.-O., 91
Cherubini, F., 131
Csöregi, E., 97

Demarne, V., 83
Denoyer, C., 43
DiBattista, M., 27
Ding, X.-F., 13
Di Paolo, M.L., 49
Do, J.-S., 19
Dodgson, J., 187

Faure, J., 67

Garcia, C., 43
Gland, J.L., 27
Gorton, L., 97
Greco, P., 7
Grisel, A., 83
Gueorguiev, V.K., 1

Helmers, H., 7
Hofmann, T., 37
Homola, J., 145
Hughes, K.L., 75

Imamura, T., 179
Iriyama, T., 157

Jaffrezic-Renault, N., 7
Jun, X., 169
Jung, S.-J., 55

Kasemo, B., 111
Kherrat, R., 7
Kukla, A.L., 135
Kume, T., 179
Kuwano, H., 163

Leray, I., 67
Lesho, M.J., 61
Lévy, F., 83
Loucif-Saibi, R., 67
Lui, A., 49
Luna-Arredondo, E.J., 123

Margesin, B., 49
McWhorter, P.J., 75
Mecea, V.M., 91
Miller, S.L., 75
Mohr, G.J., 103
Munro, W.A., 187

Nakagomi, S., 157
Nakamura, M., 163
Neamtu, C., 119
Niu, M.-N., 13

Osorio-Saucedo, R., 123

Palombari, R., 131
Patel, S.V., 27
Piletsky, S.A., 135
Ping, W., 169
Popova, L.I., 1
Pruneanu, S., 119

Reinhoudt, D.N., 151
Reyes-Barranca, M.A., 123
Rigo, A., 49
Rimet, R., 7
Rodahl, M., 111
Rodriguez, J.L., 75
Rosenfeld, D., 83
Rudkevich, D.M., 151
Ruzgas, T., 97

Scarpa, M., 49
Schmid, P.E., 83
Schröder, K., 37
Schwank, J.W., 27
Shaw, J., 187
Sheng, Z.Z., 175
Sheppard, Jr., N.F., 61
Shieh, R.-Y., 19
Shirshov, Yu.M., 135
Simpson, I., 187
Soncini, G., 49
Stefan, R.-I., 141
Stefani, A., 49
Stoyanov, N.D., 1
Sugimoto, I., 163
Széles, S., 83

Talon, R., 43
Thomas, C.L.P., 187
Toko, K., 179
Tong, Q.-Y., 13
Turcu, R., 119

Vernat-Rossi, V., 43
Vernières, M.-C., 67
Vianello, F., 49
Vijayakumar, A., 97

Wolfbeis, O.S., 103
Wróblewski, W., 151

Xiang, X.L., 175

Yamamoto, T., 157
Yanagida, H., 55
Yanagisawa, S., 179
Yee, S.S., 145

Zacheja, J., 37
Zen, M., 49

Elsevier Science S.A.

ELSEVIER

Sensors and Actuators B 37 (1996) 197–199

SENSORS AND ACTUATORS B CHEMICAL

# Subject Index of Volume B 37

Adhesion
adhesion of polymer films to oxidized silicon and its effect on performance of a conductometric pH sensor, 61
Amiodarone-selective membrane sensors
amiodarone-selective membrane electrode, 141
Ammonia sensors
the effect of initial conductivity and doping anions on gas sensitivity of conducting polypyrrole films to $NH_3$, 119
ammonia sensors based on sensitive polyaniline films, 135
Amperometric gas sensors
amperometric solid-state sensor for NO and $NO_2$ based on protonic conduction, 131
Amperometry
comparison of carbon paste electrodes modified with native and polyethylene glycol derivatized horseradish peroxidases for the amperometric monitoring of $H_2O_2$, 97
Anion selectivity
nitrite-selective ISE based on uranyl salophen derivatives, 151
Anion sensors
effects of the polymer matrix on an optical nitrate sensor based on a polarity-sensitive dye, 103
Artificial neural networks
a novel recognition method for electronic nose using artificial neural network and fuzzy recognition, 169
Atmospheric pollutant
potentiometric detection of formaldehyde in air by an aldehyde dehydrogenase FET, 49

Backside contacts
new chemical sensor based on a MOS transistor with rear contacts and two flat surfaces, 123
Bacterial strains
rapid discrimination of meat products and bacterial strains using semiconductor gas sensors, 43
Barrier height
evaluation of hydrogen-sensitive switching device by capacitance–voltage method, 157
Biofilms
deterioration of pH electrode response due to biofilm formation on the glass membrane, 187
Biosensors
potentiometric detection of formaldehyde in air by an aldehyde dehydrogenase FET, 49
adhesion of polymer films to oxidized silicon and its effect on performance of a conductometric pH sensor, 61
comparison of carbon paste electrodes modified with native and polyethylene glycol derivatized horseradish peroxidases for the amperometric monitoring of $H_2O_2$, 97

Capacitance–voltage characteristics
evaluation of hydrogen-sensitive switching device by capacitance–voltage method, 157

Elsevier Science S.A.

Carbon monoxide
the characterization of a CuO/ZnO heterocontact-type gas sensor having selectivity for CO gas, 55
Carbon paste
comparison of carbon paste electrodes modified with native and polyethylene glycol derivatized horseradish peroxidases for the amperometric monitoring of $H_2O_2$, 97
Chemical sensors
integrated optical enlarged-field interferometer used as a chemical sensor, 7
amiodarone-selective membrane electrode, 141
sensitive, selective chemical-sensing layers produced by plasma organic film technology, 163
Conformal mapping
fluid characterization using sensor elements based on interdigitated electrodes, 37
Copper oxide/zinc oxide heterocontacts
the characterization of a CuO/ZnO heterocontact-type gas sensor having selectivity for CO gas, 55

Deep diffusion
new chemical sensor based on a MOS transistor with rear contacts and two flat surfaces, 123
Diffusion models
deterioration of pH electrode response due to biofilm formation on the glass membrane, 187
Diffusion of pyridine
porphyrins as probe molecules in the detection of gaseous pollutants. I: Diffusion of pyridine in polystyrene films containing zinc-tetraphenylporphyrin, 67
Dissipation factor
frequency and dissipation-factor responses to localized liquid deposits on a QCM electrode, 111
Drug analysis
amiodarone-selective membrane electrode, 141

Electrical transport properties
electrical transport properties of thin-film metal–oxide–metal $Nb_2O_5$ oxygen sensors, 83
Electrochemical quartz-crystal microbalance (EQCM)
quartz-crystal mass sensors with glued foil electrodes, 91
Electrochemical sensors
electrochemical nitrogen dioxide gas sensor based on solid polymeric electrolyte, 19
Electroconducting polypyrrole films
the effect of initial conductivity and doping anions on gas sensitivity of conducting polypyrrole films to $NH_3$, 119
Electronic noses
a novel recognition method for electronic nose using artificial neural network and fuzzy recognition, 169

Fermentation
monitoring of fermentation process of *miso* (soybean paste) using multichannel taste sensor, 179
Finite-element method
fluid characterization using sensor elements based on interdigitated electrodes, 37
Fluid characterization
fluid characterization using sensor elements based on interdigitated electrodes, 37
Fluorescence
effects of the polymer matrix on an optical nitrate sensor based on a polarity-sensitive dye, 103
Formaldehyde
potentiometric detection of formaldehyde in air by an aldehyde dehydrogenase FET, 49
Formaldehyde dehydrogenase
potentiometric detection of formaldehyde in air by an aldehyde dehydrogenase FET, 49
Frequency
frequency and dissipation-factor responses to localized liquid deposits on a QCM electrode, 111
Fuzzy pattern recognition
a novel recognition method for electronic nose using artificial neural network and fuzzy recognition, 169

Gas sensors
the characterization of a CuO/ZnO heterocontact-type gas sensor having selectivity for CO gas, 55
ammonia sensors based on sensitive polyaniline films, 135

High temperature
survivability of a silicon-based microelectronic gas-detector structure for high-temperature flow applications, 27
Horseradish peroxidase
comparison of carbon paste electrodes modified with native and polyethylene glycol derivatized horseradish peroxidases for the amperometric monitoring of $H_2O_2$, 97
Hydrogels
adhesion of polymer films to oxidized silicon and its effect on performance of a conductometric pH sensor, 61
Hydrogen gas sensors
calibration of an integrated hydrogen gas-sensing system, 75
Hydrogen sensing
evaluation of hydrogen-sensitive switching device by capacitance–voltage method, 157

Integrated optics
integrated optical enlarged-field interferometer used as a chemical sensor, 7
Integrated sensors
calibration of an integrated hydrogen gas-sensing system, 75
Interdigitated structures
fluid characterization using sensor elements based on interdigitated electrodes, 37
Ion-sensitive field-effect transistors
new chemical sensor based on a MOS transistor with rear contacts and two flat surfaces, 123
ISFETs
potentiometric detection of formaldehyde in air by an aldehyde dehydrogenase FET, 49

Lipid membranes
monitoring of fermentation process of *miso* (soybean paste) using multichannel taste sensor, 179
Localized liquid deposits
frequency and dissipation-factor responses to localized liquid deposits on a QCM electrode, 111
Low-temperature electrode material
a low-temperature zirconia oxygen gauge based on new oxide composite electrodes, 175

Mach–Zehnder interferometer
integrated optical enlarged-field interferometer used as a chemical sensor, 7
Meat products
rapid discrimination of meat products and bacterial strains using semiconductor gas sensors, 43
Metallic foils
quartz-crystal mass sensors with glued foil electrodes, 91
Metal–oxide–metal structures
electrical transport properties of thin-film metal–oxide–metal $Nb_2O_5$ oxygen sensors, 83
Microelectronic sensors
survivability of a silicon-based microelectronic gas-detector structure for high-temperature flow applications, 27
*Miso* (soybean paste)
monitoring of fermentation process of *miso* (soybean paste) using multichannel taste sensor, 179
Multichannel taste sensors
monitoring of fermentation process of *miso* (soybean paste) using multichannel taste sensor, 179
Multiple regression analysis
monitoring of fermentation process of *miso* (soybean paste) using multichannel taste sensor, 179

Niobium oxide
electrical transport properties of thin-film metal–oxide–metal $Nb_2O_5$ oxygen sensors, 83
Nitrate sensors
effects of the polymer matrix on an optical nitrate sensor based on a polarity-sensitive dye, 103
Nitrite ion-selective electrodes
nitrite-selective ISE based on uranyl salophen derivatives, 151
Nitrogen dioxide
electrochemical nitrogen dioxide gas sensor based on solid polymeric electrolyte, 19
Nitrogen oxides
amperometric solid-state sensor for NO and $NO_2$ based on protonic conduction, 131

Odour recognition
a novel recognition method for electronic nose using artificial neural network and fuzzy recognition, 169
Optical sensors
surface plasmon resonance sensor based on planar light pipe: theoretical optimization analysis, 145
Optodes
effects of the polymer matrix on an optical nitrate sensor based on a polarity-sensitive dye, 103
Oxygen gauges
a low-temperature zirconia oxygen gauge based on new oxide composite electrodes, 175
Oxygen sensors
electrical transport properties of thin-film metal–oxide–metal $Nb_2O_5$ oxygen sensors, 83

Palladium
evaluation of hydrogen-sensitive switching device by capacitance–voltage method, 157
pH Electrodes
deterioration of pH electrode response due to biofilm formation on the glass membrane, 187

pH-ISFETs
effect of two types of surface sites on the characteristics of $Si_3N_4$-gate pH-ISFETs, 13
Photolithographic patterning
adhesion of polymer films to oxidized silicon and its effect on performance of a conductometric pH sensor, 61
Plasma organic films
sensitive, selective chemical-sensing layers produced by plasma organic film technology, 163
Polarity probes
effects of the polymer matrix on an optical nitrate sensor based on a polarity-sensitive dye, 103
Polyaniline
ammonia sensors based on sensitive polyaniline films, 135
Polyethylene glycol
comparison of carbon paste electrodes modified with native and polyethylene glycol derivatized horseradish peroxidases for the amperometric monitoring of $H_2O_2$, 97
Polystyrene films
porphyrins as probe molecules in the detection of gaseous pollutants. I: Diffusion of pyridine in polystyrene films containing zinc-tetraphenylporphyrin, 67

Quartz-crystal microbalance (QCM)
quartz-crystal mass sensors with glued foil electrodes, 91
frequency and dissipation-factor responses to localized liquid deposits on a QCM electrode, 111
Quartz-crystal resonator
quartz-crystal mass sensors with glued foil electrodes, 91

Ratio of silanol to amine sites
effect of two types of surface sites on the characteristics of $Si_3N_4$-gate pH-ISFETs, 13
Refractive index
surface plasmon resonance sensor based on planar light pipe: theoretical optimization analysis, 145

Semiconductor gas sensors
rapid discrimination of meat products and bacterial strains using semiconductor gas sensors, 43
Sensing characteristics
effect of two types of surface sites on the characteristics of $Si_3N_4$-gate pH-ISFETs, 13
Sensor biofouling
deterioration of pH electrode response due to biofilm formation on the glass membrane, 187
Sensors
porphyrins as probe molecules in the detection of gaseous pollutants. I: Diffusion of pyridine in polystyrene films containing zinc-tetraphenylporphyrin, 67
$Si_3N_4$ films
effect of two types of surface sites on the characteristics of $Si_3N_4$-gate pH-ISFETs, 13
Silane
adhesion of polymer films to oxidized silicon and its effect on performance of a conductometric pH sensor, 61
Site-binding model
effect of two types of surface sites on the characteristics of $Si_3N_4$-gate pH-ISFETs, 13
Solid polymer electrolytes
electrochemical nitrogen dioxide gas sensor based on solid polymeric electrolyte, 19
Sorption phenomena
pulse mode of operation of diode humidity sensors, 1
Step response
deterioration of pH electrode response due to biofilm formation on the glass membrane, 187
Structural stability
survivability of a silicon-based microelectronic gas-detector structure for high-temperature flow applications, 27
Surface plasmon resonance
surface plasmon resonance sensor based on planar light pipe: theoretical optimization analysis, 145
Survivability
survivability of a silicon-based microelectronic gas-detector structure for high-temperature flow applications, 27
Switching devices
evaluation of hydrogen-sensitive switching device by capacitance–voltage method, 157

Thin $SnO_2$ films
pulse mode of operation of diode humidity sensors, 1

Uranyl salophenes
nitrite-selective ISE based on uranyl salophen derivatives, 151

Water quality
deterioration of pH electrode response due to biofilm formation on the glass membrane, 187
Work function
evaluation of hydrogen-sensitive switching device by capacitance–voltage method, 157

Zinc-tetraphenylporphyrin
porphyrins as probe molecules in the detection of gaseous pollutants. I: Diffusion of pyridine in polystyrene films containing zinc-tetraphenylporphyrin, 67
Zirconia electrolyte
a low-temperature zirconia oxygen gauge based on new oxide composite electrodes, 175
Zirconium phosphate
amperometric solid-state sensor for NO and $NO_2$ based on protonic conduction, 131